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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,067	02/12/2002	Weyl K. Wang	8378/86334	7460

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EXAMINER	
WANG, QUAN ZHEN	
ART UNIT	**PAPER NUMBER**
2613	

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/075,067	Applicant(s) WANG ET AL.	
	Examiner Quan-Zhen Wang	Art Unit 2613	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 22 March 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☒ Applicant's reply has overcome the following rejection(s): 20 and 25.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: *20 and 25*.
   Claim(s) objected to: _____.
   Claim(s) rejected: *19 and 32-37*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☐ Other: _____.

JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Continuation of 11. does NOT place the application in condition for allowance because: The Applicant's arguments filed March 22, 2006 have been fully considered but they are not persuasive.

Regarding claim 19, the Applicant argues that the office action has failed to properly address "providing pre-set laser modules for installation in a network where the number of optical spans between a module and a respective receiver is not larger than a predetermined exponent". However, since Chraplyvy and Zyskind disclose and suggest adjusting the optical power of an individual transmitter of an individual channel, as it is realized by the Applicant, and Zyskind further discloses that the total gain of 13 amplifiers is the product of the individual gain of each of the 13 amplifiers, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide pre-set laser modules for installation in a network where the number of optical spans between a module and a respective receiver is not larger than the exponent. Furthermore, Chraplyvy discloses that the device to adjust the power of transmitter can be "any device which can be used to selectively increase of decrease the power of the optical signal" (column 4, lines 23-26), and Zyskind clearly and explicitly teaches "adjusting the transmitter powers of the individual channels so that the input channel power spectrum is complementary to the gain of SNR spectrum of the amplifier chain" (page 39, first paragraph and fig. 2.10). Armed with these teaching, one having ordinary skill in the art would readily to "provide pre-set laser modules for installation in a network where the number of optical spans between a module and a respective receiver is not larger than the exponent" because an optical transmitter inherently comprises a laser or a LED. Even the Applicant adimts that the transmitters "could be implemented as a plurality of lasers" (page 6). The Applicant argues that "modularity of transmitters is not addressed" in cited references. However, "a transmitter of an individual channel" is considered a "module of transmitter". Therefore, the cited references do address the issue of "modularity of transmitters". The Applicant further argues that Chen is quite different from Chraplyvy and Zyskind. The question is not whether the cited references are the same or not, the question is whether the cited references teaches the claimed limitations. In the instant case, Chraplyvy teaches a compensation process for a network comprising: evaluating variations in amplifier gain over a selected range of wavelengths (column 4, lines 16-56); establishing an inverse function of the gain variations (1/Gi); and predetermining an output parameter of an optical transmitter in accordance with a corresponding value of the inverse function on a per wavelength basis (equation A); predetermining an output parameter for each one of a plurality of optical transmitters in accordance with a corresponding value of the inverse function selected from a plurality of corresponding wavelengths (equation A); setting a power output parameter for each member of the plurality of lasers in accordance with a corresponding value of the inverse function (column 4, lines 16-56); Zyskind discloses that the total gain of 13 amplifiers is the product of the individual gain of each of the 13 amplifiers (fig. 2.8), and Chen discloses that the basic idea behind these devices is to fabricate an optical filter whose transmission function (loss spectrum) versus wavelength is proportional to the inverse of the gain spectrum of the optical amplifier (Column 2, lines 24-30). The cited references Chraplyvy, Chen, and Zyskind disclose and suggest all the limitations in the claim, therefore, the rejection of claim 19 still stands.

Regarding claims 32-37, the amendment does not overcome the rejection under 35 U.S.C. 112 second paragraph since the Applicant does not provide adequate information to clarify whether the "gain profile" in the claim directs to the gain of the pre-amplifier or the gain of the span because both the pre-amplifier and the span inherently have gain profiles. The Applicant also fails to address as to how the "gain" of the signals is adjusted in accordance with the predetermined profile. On cannot answer the above questions by reading the paragraphs on page 7 or looking at Figs. 2, 3, and 4.

In addition, regarding claim 32, in view of the 112 problem, Sundelin discloses an optical system comprising: a plurality of communications links; a plurality of add/drop elements between various members of the plurality of links, each of the elements including a pre-amplifier, the pre-amplifier inherently having a common predetermined input range. The system of Sundelin differs from the claimed invention in that Sundelin does not specifically teach that at least one pre-set pre-emphasis module located at one of the elements, the module establishes a predetermined gain profile, and couples a plurality of optical signals the gain of which is adjusted in accordance with the predetermined profile, to an input of one of the links associated with the one element, the module being usable to limit incoming optical signals to the predetermined input range when used with up to a predetermined number of optical links determined by the common input range. However, Sundelin further teaches that the power per channel in the added signal is given approximately the same level as the power of each passing channel by an optical amplifier arranged in the input line to the add coupler from the multiplexer (abstract), and it is well known in the art to use a pre-set pre-emphasis module to control and limit the input signals. For example, Wilner teaches a dynamic pre-emphasis module (dynamic power equalization module), used in a WDM system with non-uniform amplifiers, which couples a plurality of gain adjusted optical signals to the system; and it is well known in the art that a dynamic pre-emphasis module can be used as a static pre-emphasis module and pre-set the emphasis values. Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to incorporate the pre-emphasis module taught by Wilner into the system of Sundelin, and pre-set the emphasis module to limit incoming optical signals to the predetermined input range when used with up to a predetermined number of optical links determined by the common input range in order to overcome gain non-uniformity and equalize WDM channels to ensure robust network operation. Regarding claim 33, it is well known and a widely practice in the art to use a plurality of substantially identical pre-emphasis module in an optical system in order to reduce the cost for spare parts. Regarding claims 35, 36, and 37, the modified system of Sundelin and Wilner differs from the claimed invention in that Sundelin and Wilner do not specifically teach that the pre-emphasis modules each incorporate channel based gain characteristics in accordance with an inverse of at least the common gain profile or the inverse of both of the common gain profile or the gain profiles raised to the predetermined number of links. However, Wilner further teaches that the pre-emphasis module is used to equalize the channels in the system, including gain non-uniformity. Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to configure the pre-emphasis modules incorporate channel based gain characteristics in accordance with an inverse of at least the common gain profile the inverse of both of the common gain profile or the gain profiles raised to the predetermined number of links in order to compensate the gain non-uniformity. In conclusion, the cited references disclose and suggest all the limitations in the claims 32-37 to one of ordinary skill in the art and the rejections of claims 32-37 still stand.